ELECTRONIC & HAND DELIVERY

Docket No. 03-IEP-01 Docket Unit, MS-4 California Energy Commission 1516 Ninth Street Sacramento, CA 95814-5512

Re: Pacific Gas and Electric Company's Response to Questions Regarding the CEC's Aging Power Plant Draft Staff White Paper

Pacific Gas and Electric Company (PG&E) respectfully submits the following responses related to the CEC's staff draft Aging Power Plant Report, entitled "Resource, Reliability and Environmental Concerns of Aging Power Plant Operations and Retirements." The first section of this submittal responds to the questions posed by the Commission with the workshop announcement. The second section provides PG&E's response to the specific questions posed by the Commission during the August 26, 2004, workshop.

We appreciate the CEC's inquiry into this important matter and hope our responses have been helpful.

Sincerely,

Original signed by Les Guliasi

Les Guliasi Director, State Agency Relations

LGG:pmm

Enclosure

PG&E's Response to Selected Workshop Questions Regarding the 2004 IEPR Aging Power Plant Study For Discussion August 26, 2004

Section 1. Questions posed by the Commission with the workshop notice.

- Q 2. With respect to Chapter 2 (The Role of Aging Power Plants), the IEPR Committee seeks input on the following specific questions:
 - c. For PG&E: PG&E has indicated in its Long Term Resource Plan that it assumes RMR contracts will no longer be available in PG&E's service area after 2006 (p. 3-8). The Committee requests that PG&E explain this assumption, including a discussion of whether the services currently provided by RMR units would be needed in 2006.

PG&E's Long Term Plan (LTP) filing stated that:
(a)fter 2006, PG&E assumes RMR contracts will no longer be available in PG&E's service area. (R. 04-04-003, July 9, 2004, p. 3-8)

PG&E was referring to Condition 2 RMR contracts, that is, contracts that only operate because of the RMR payment and do not sell to the market in general, and was referring to merchant plants, not PG&E's own fossil units.

In the recent Resource Adequacy Workshops, it was agreed that Condition 2 RMR contracts would have some portion of the unit's capacity count in the resource adequacy requirements of the utility that ultimately pays for the RMR expenses. For 2005 and 2006, PG&E estimates that 510 MW of condition 2 RMR contracts will count as PG&E capacity.

The assumption that RMR contracts will no longer be available in PG&E's service area after 2006 is consistent with the CPUC's (d. 04-01-050) and CAISO's stated positions that reliance on RMR contracts should be reduced. (See CAISO's witness Pettingill, August 6, 2004, p. 11.) In PG&E's December 2003 Grid Expansion Plan, PG&E proposed several transmission reinforcements designed to lessen RMR reliance. (See Table 4-1 of the plan.) Thus, PG&E expects that some of the reliability services currently provided by RMR units will be replaced by transmission reinforcements that have been approved by the CAISO. For those units not displaced by transmission upgrades, PG&E anticipates that many of them will obtain bilateral contracts with PG&E as a replacement for their RMR contracts. PG&E will soon be issuing RFOs for short- and medium-term contracts for capacity, peaking, and shaping services, and the current RMR units will be eligible to participate in the bidding process, and may well continue to run, supported by new contracts.

With regard to the two fossil plants PG&E owns that currently hold RMR contracts:

<u>Hunters Point Power Plant (HPPP)</u>

As explained in PG&E's earlier data request responses in the Aging Power Plant study (June 25, 2004), under a 1998 agreement between PG&E and the City and County of San Francisco, PG&E will shutdown HPPP as soon as the facility is no longer needed to sustain electric reliability in San Francisco and the surrounding area. Once we complete the transmission upgrades addressed in the recent letter from the ISO (attached below), we expect that the RMR contract for Hunters Point power plant (HPPP) will be terminated and the plant shut down.

Humboldt Bay Power Plant (HBPP)

HBPP is under an RMR contract and is expected to run beyond 2005. As we have noted (in a prior data request response), these units serve important local area needs.

d. For PG&E: PG&E addresses the potential retirement of RMR units in its Long Term Resource Plan, indicating that it has identified transmission projects that are expected to reduce RMR needs. PG&E also notes that some of the RMR units face reductions in their emissions allowances and more stringent cooling water requirements. PG&E assumes that, lacking a contractual commitment that would assure recovery of ongoing costs and any required capital expenditures, at least 2,000 MW could retire in the next five or six years (p. 4-62). Does PG&E's estimate of potential retirements include any plants that are currently designated as RMR units? If so, which plants? What factors would drive the retirement of these plants?

In its long term planning analysis, PG&E did not assume which specific units would retire. We considered the more than 4,500 MW of "aging power plants" connected to the PG&E system, and assumed that at least 2,000 MW would retire by 2010 if not offered a contractual commitment that would allow them to maintain or upgrade the plant.

One plant owner has validated that assumption in a recent statement. At the CEC's June 9 workshop on aging power plants, a spokesperson for Mirant indicated that the Contra Costa 6 and Pittsburg 7 units (over 1,000 MW combined) would retire without RMR contracts. Additionally, other data support PG&E's assumption that some of these plants will retire. For example, the CAISO recently announced its 2005 Local Area Reliability Services (LARS) recommendations. Under two of the three possible scenarios, Pittsburg 7 does not have an RMR contract. Under one of those two scenarios, Pittsburg 6 (325 MW) does not have a contract, either. Contra Costa 6 does not have an RMR contract under any of the possible scenarios. Pittsburg 6 has SCR installed, so it may be able to continue to operate without a contract, but its high heat rate may be a factor. Mirant indicated that the lack of SCR on Pittsburg 7 and Contra Costa 6, coupled with the lack of contracts that would allow an investment

in SCR, could force the plants' retirements. Additional RMR units could lose contracts in future years as other transmission projects are completed.

On the other hand, it is possible that some of these plants may secure short and medium contracts, such as the possible contractual commitments which were contemplated in PG&E's Long-Term Plan filing, which may postpone plant retirements (see pp 4-62 and 4-63).

- Q 3. With respect to Chapter 3 (Reliability Analysis), the IEPR Committee seeks input on the following specific questions:
 - c. Is the staff's classification Tables 3-1 and 3-2 of the relative risk of retirement of the aging units under study (high, medium and low) valid and accurate? Are there other factors to consider in making these rankings of retirement risks? All parties are encouraged to identify any and all plants at risk of retirement during the study period, as well as specify whether such plants are at low, medium or high risk of retirement and discuss the rationale for such ranking.. The Committee requests that the CAISO, SCE, PG&E and SDG&E review the staff study sample to insure that the staff has developed a comprehensive list of aging plants whose retirement could result in reliability concerns.

The staff's classification of the relative risk of retirement of the aging units is reasonable. PG&E concurs with the assumption that the Hunters Point Power Plant should be retired in 2006 once the necessary transmission improvements projects are complete. The recent CPUC approval of the Jefferson-Martin transmission line is a significant step toward achieving that goal. The attached letter from the ISO discusses the conditions needed to release HPPP from its RMR contract.



ISO LETTER.pdf

d. Are the outcomes of the power flow modeling valid and accurate? Is the level of predicted overloads reasonable? The Committee requests that the CAISO, SCE, PG&E and SDG&E review and comment on the results of the CEC staff's assessment of the reliability impacts of the potential retirement of medium and high risk plants.

PG&E believes the retirement of the identified medium and high risk plants has no adverse impacts to PG&E's transmission system. As stated in the staff report, PG&E continues to make improvements to its transmission facilities, and these improvements will eliminate many of the overloads identified by the CEC staff. Attached is the August 2004 monthly report PG&E submitted to the California Public Utilities Commission on planned transmission improvements.

PG&E would welcome the opportunity to work with the CEC staff to update its power flow modeling to incorporate the impacts of these planned improvements. For example, the proposed Moss Landing-Metcalf 230 kV Project, recently approved by the CAISO Board of Governors in April 2004, would directly address the overloading the CEC staff identified on that 230 kV line (page 44 of staff report).



Q 6. With respect to Chapter 6 (Environmental Issues Associated with Aging Plants), the IEPR Committee seeks input on the following specific questions:

c. for all aging plant operators: For those plants without SCR, the Committee requests comments concerning the schedule and likely costs for any planned installation of emissions control technologies at these plants. For those plants with SCR already installed, the Committee would appreciate comments from their operators concerning the schedule and likely costs for any additional emissions control technologies at these plants.

Humboldt Bay

Humboldt Bay Units 1&2 will not be retrofitted with SCR because the plant is located in an air district that is in attainment for NOx, as noted on p. 14, footnote (b) in the White Paper. HBPP may be affected by future emission requirements or more stringent cooling water restrictions. PG&E is currently evaluating the impact of these new or pending requirements and how they might affect HBPP. There are no current plans to retire HBPP.

Hunters Point

Hunters Point Unit 4 is currently facing increasingly stringent emission requirements. Due to the impending retirement of that facility, PG&E is working to avoid installation of expensive emission reduction equipment (SCR). Interchangeable Emission Reduction Credits (IERCs) are available for the years 2004-2007 if necessary to allow continued operation of this unit until it can be retired.

- j. For all aging power plant operators: The Committee is interested in assessing the socioeconomic impacts of the identified plants. The CEC staff draft in Table 6-6 lists the property tax contributions and jobs associated with some of the power plants. The Committee requests the following information from each of the power plant operators, to be provided either in pre-workshop comments on August 23rd, at the workshop on the 26th, or in reply comments by September 7th
 - (a) total property tax payments by these facilities for the past 3 years
 - (b) total franchise fee payments for the last 3 years,
 - (c) any other community contributions/benefits for the past 3 years, and
 - (d) the number of jobs provided by the facilities for the past 3 years.

(a) Property Tax Payment

For HPPP: 2001, \$650 thousand; 2002, \$723 thousand; and 2003, \$844 thousand.

For HBPP: 2001,\$190 thousand; 2002, \$206 thousand; and 2003, \$210 thousand.

(b) Not applicable.

(c) Community Contributions

PG&E does not tie its community contributions to specific facilities. For the convenience of the Committee, however, PG&E reviewed its most recent community contributions to organizations within the zip codes surrounding HBPP and HPPP for 2003. For Hunters Point, the local contributions to 501(c)3 organizations in the area total \$8,900. For Humboldt Bay, the local contributions to area charities were \$20,000. PG&E's presence in the San Francisco and greater Humboldt Bay areas will endure beyond the lives of these two power plants.

(d) Employment

In 2003, the total operations workforce for HPPP was 61, and for the fossil side of HBPP, the total was 53. The number of jobs at the plants for the two earlier years is not available, but we believe the number of jobs at each facility was not significantly different.

k. For all plant operators: In addition the Committee requests that each operator provide an assessment of the economic impact on the local economy of closing these facilities. To the extent that any of the above categories do not apply to a particular plant (e.g., plants owned by utilities may not pay franchise fees on natural gas consumptions), the operator should note that fact and provide information on the other categories.

PG&E anticipates that the economic impact of shutting down HPPP will be small, and that the unquantifiable benefits to the community, the city, and the county are anticipated by all to be far greater than the job and tax revenues associated with the plant's closure. PG&E has not performed an analysis of how the property taxes will change, nor have we performed an analysis of whether there will be any net job loss as these PG&E employees may apply for other positions in the company.

PG&E has not performed an economic analysis of the impact of closing HBPP. Due to both the need for local generation in the area, and the fact that the site holds a nuclear unit in SAFSTOR, plant closure is not anticipated.

Section 2. Questions asked of PG&E at the August 26 workshop:

1) What is the time frame of the Grid Expansion Plan filed with the ISO?

PG&E's Electric Transmission Grid Expansion Plan covers a ten year planning window. PG&E's Plan identifies specific transmission expansion upgrades needed in the near-term (five years) to address all applicable reliability criteria. PG&E also uses a ten-year planning horizon and long-term studies to identify larger scale projects and to increase the scope and depth of its expansion planning analysis. The Grid Expansion Plan identifies specific transmission projects, costs, and estimated in-service dates, among other pertinent information. A copy of the 2003 plan is available through the CAISO and has previously been made available to CEC staff. We would be happy to provide another copy to the Commission if requested.

2) What kind of cost-benefit analysis does PG&E use to prioritize transmission investment projects, such as a payback period or a cost-effectiveness test?

PG&E makes a customer-oriented determination of cost-effectiveness of transmission projects. For reliability-driven projects such as those in the transmission expansion plan, the ratio of the reliability benefit to the cost (or BCR) of a project is used as a measure of cost-effectiveness. The reliability benefit would be the dollar value, or value of service (VOS), that customers realize from reduced interruptions under contingency conditions, not the loss of revenue to PG&E. The cost of the project includes the engineering, material procurement and construction that is directly identifiable as required to place a unit of property in service. If the BCR is greater than 1.0, the project would generally be implemented. For maintenance-driven projects that involve the replacement of aged, deteriorated equipment, the Net Present Value (or NPV) is used as a measure of cost effectiveness. A project with the highest NPV with respect to its alternatives would generally be implemented.

3) Why have PG&E's RMR contract needs persisted whereas Edison's have not?

Prior to electric industry restructuring in California, PG&E planned its system using the principles of integrated least cost planning that rely on generation, transmission, demand side and other resources in meeting its customer's electricity needs. Since restructuring, the California Independent System Operator (CAISO) conducts a reliability must-run (RMR) analysis and a Local Area Reliability Service (LARS) process annually to determine which generation resources the CAISO requires to ensure that the CAISO-controlled grid meets the applicable reliability criteria. For generators that are needed to meet reliability, the CAISO enters into an RMR contract with the identified generators to allow the CAISO to call on these generators at cost-based prices.

Over the past few years, PG&E has worked with the CAISO and other stakeholders through the CAISO's processes to reduce RMR requirements in the PG&E service area by proposing cost-effective

transmission upgrades. PG&E and the CAISO have been successful in reducing the RMR requirement by 50 percent since 2000. The following table shows the amount of RMR requirements between 2001-2004 as well as the projected amount for 2005.

Reliability Must Run Contract Requirements in PG&E's Service Area

Local Areas	2001*	2002*	2003*	2004*	2005**
Humboldt	171	320	125	128	136
Battle Creek	102	99	100	102	0
North Bay	430	488	524	560	443
Vaca Dixon	0	0	154	33	0
Bay Area***	8870	7940	4700	4087	2871
Sierra	398	391	218	288	747
Stockton	365	240	173	301	282
Fresno	1934	1877	1896	1558	1666
TOTAL	12270	11355	7890	7057	6145

^{*} from "2005 Reliability Must-Run Technical Study of the ISO-Controlled Grid" dated May 2004

^{**} from "ISO Recommended LARS Designations 2005" dated August 19, 2004

^{***} The Bay Area total excludes 556 MW from Los Medanos EC that has a long term contract.